San Diego, like California, has been experiencing a late-season surge in influenza activity. Although influenza activity in San Diego County has been lower this season compared to other recent seasons, excluding the 2020-21 season, the number of reported cases is higher than usual for this time of the year. Seasonal influenza vaccinations are still available and encouraged, especially for those at higher risk of adverse outcomes.

**Current Week 22 (ending 6/4/2022)**
- 195 new influenza detections reported
- No influenza-related deaths reported
- 5% influenza-like illness (ILI) among emergency department visits
- 2% of death certificates registered with pneumonia and/or influenza

### Virus Characteristics

- **Influenza A, subtype unknown**
- **Influenza A (H1N1)pdm09**
- **Influenza A (H3)**
- **Influenza B, subtype unknown**
- **Influenza B/Victoria**
- **Influenza B/Yamagata**
- **Influenza, type unknown**

### Key Points

- Flu deaths less than 18 years of age are reportable to CDPH.
- In a congregate living setting, outbreaks are defined as at least one laboratory-confirmed influenza case in the setting of a cluster (≥2 cases) of influenza-like illness (ILI) within a 72-hour period.

### Table 1. Influenza Surveillance Indicators.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2021-22 Season</th>
<th>2020-21 Season</th>
<th>Prior 5-Year Average*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Week 22</td>
<td>Week 21</td>
<td>Total To Date</td>
</tr>
<tr>
<td>All influenza detections reported (rapid or PCR)</td>
<td>195</td>
<td>206</td>
<td>3,675</td>
</tr>
<tr>
<td>Percent of emergency department visits for ILI</td>
<td>5%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Percent of deaths registered with pneumonia and/or influenza</td>
<td>2%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Number of influenza-related outbreaks**</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Number of influenza-related deaths reported^</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

Influenza season is July 1 – June 30, Weeks 27-26. Previous weeks’ case counts or percentages may change due to delayed processing or reporting.


**At least one case of laboratory-confirmed influenza in a setting experiencing two or more cases of influenza like illness (ILI) within a 72-hour period.


^Current FY deaths are shown by week of report; by week of death for prior FYs. Total deaths reported in prior seasons: 87 in 2016-17, 343 in 2017-18, 77 in 2018-19, 108 in 2019-20, and 2 in 2020-21.
Flu vaccination associated with 34% lower risk of cardiac events

A new meta-analysis in JAMA Network Open of six randomized controlled trials found that seasonal influenza vaccination was associated with a 34% lower risk of major adverse cardiovascular events, and people with a recent acute coronary event had a 45% lower risk. The studies included in the meta-analysis took place from 2000 to 2021 and included participants who were randomized to receive either a flu vaccine or placebo. The studies included 9,001 patients at an average age of 65.5 years; 52.3% had a previous cardiac event.

The authors found that 3.6% of vaccinated patients developed a major adverse cardiovascular event within 12 months of flu vaccination, compared with 5.4% of those who received placebo or control. This means 56 people would have to be vaccinated to prevent 1 cardiac event. All told, 1.7% of vaccine recipients died of cardiovascular causes, compared with 2.5% of placebo or control recipients, for a 26% lower risk (risk reduction, 0.74; 95% confidence interval, 0.42 to 1.30; P = .29).

The authors concluded that the effect sizes reported for major adverse cardiovascular events and cardiovascular mortality (in patients with and without recent ACS [acute coronary syndrome]) are comparable with—if not greater than—those seen with guideline-recommended mainstays of cardiovascular therapy, such as aspirin, angiotensin-converting enzyme inhibitors, β-blockers, statins, and dual antiplatelet therapy.

Source: CIDRAP

Table 2. Influenza Cases by Week Reported, 2021-2022 Season

<table>
<thead>
<tr>
<th>Positive Test Type/Subtype</th>
<th>Week 22</th>
<th>Week 21</th>
<th>Total to Date</th>
<th>Percent to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A, subtype unknown</td>
<td>168</td>
<td>181</td>
<td>3,030</td>
<td>82.4%</td>
</tr>
<tr>
<td>Influenza A (H1N1)pdm09</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.0%</td>
</tr>
<tr>
<td>Influenza A (H3)</td>
<td>25</td>
<td>21</td>
<td>297</td>
<td>8.1%</td>
</tr>
<tr>
<td>Influenza B, subtype unknown</td>
<td>2</td>
<td>0</td>
<td>319</td>
<td>8.7%</td>
</tr>
<tr>
<td>Influenza B/Victoria</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Influenza B/Yamagata</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Influenza, type unknown</td>
<td>0</td>
<td>4</td>
<td>28</td>
<td>0.8%</td>
</tr>
<tr>
<td>Total</td>
<td>195</td>
<td>206</td>
<td>3,675</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Influenza Activity Indicator:
The activity level compares the current week’s ED ILI% (emergency department influenza-like illness, percent of all visits) to the mean and number of standard deviations above of the mean of the ED ILI% in non-influenza season weeks (CDC disease weeks 27-39) from the current and prior four seasons.

There are 10 activity levels, classified as: Minimal (levels 1-3), Low (levels 4-5), Moderate (levels 6-7), and High (levels 8-10). An activity level of 1 corresponds to when the ED ILI% is below the mean; level 2 corresponds to when the ED ILI% is less than 1 standard deviation above the mean; level 3 corresponds to when the ED ILI% is more than 1 but less than 2 standard deviations above the mean, and so on, with an activity level of 10 corresponding to when the ED ILI% is at 8 or more standard deviations above the mean.
Figure 2. San Diego County Influenza Detections by Type and CDC Episode Week*, 2021-22 Season to Date (N=3,675).

Figure 3. Cumulative Influenza Cases by CDC Episode Week* and Season.

*If case did not have symptoms or illness onset date is unavailable, the earliest of specimen collection date, date of death, or date reported is used instead.
Figure 4. Proportion of Influenza Cases by Age Group and Season.

Figure 5. Number of Influenza Vaccinations Administered* by CDC Week and Season.

* Influenza vaccinations administered and entered into the California Immunization Registry (CAIR2). The San Diego Immunization Registry (SDIR) transitioned to the California Immunization Registry (CAIR2) on Monday, April 25, 2022. All vaccination data is now being pulled from CAIR2. Due to differences in the programming of each system, the overall count of vaccinations may differ slightly from previously-reported data. Week 52 data are repeated for week 53 for seasons that do not include week 53.
**Figure 6. Percent of Emergency Department Visits for ILI Chief Complaint by CDC Week and Season*.**

![Graph showing percent of emergency department visits for ILI chief complaint by CDC week and season.](image)

* Week 52 data are repeated for week 53 for seasons that do not include week 53.

**Figure 7. Percent of Emergency Department Visit Chief Complaints for Cough, Cold, Fever, or Respiratory Symptoms* by CDC Week, 2021-22 Season to Date.**

![Graph showing percent of emergency department visits for chief complaints by CDC week.](image)

* Respiratory category includes cough, cold symptoms, influenza-like illness, and other respiratory symptoms.
Figure 8. Percent of San Diego County Emergency Department Visits for Influenza-like Illness by CDC Week and Season Compared to 5-Year Baseline and Upper 95% Threshold Values (Serfling Method).

Figure 9. Percent of San Diego County Deaths Registered with Pneumonia and/or Influenza by CDC Week and Season Compared to Prior 5-Year Baseline and Upper 95% Threshold Values (Serfling Method).
Figure 10. Influenza Deaths by Type and Season.

- Influenza A, subtype unknown: 22 deaths
- Influenza A(H1N1)pdm09: 5 deaths
- Influenza A(H3): 14 deaths
- Influenza B, all subtypes: 58 deaths
- Influenza, type unknown: 25 deaths
- Both influenza A and influenza B: 1 death

Figure 11. Percent of Influenza Deaths by Age Group, Vaccination Status, and Underlying Medical Condition, 2021-22 Season.

- Underlying Medical Condition:
  - < 18 years: 100% (N=0)
  - 18-64 years: 100% (N=2)
  - 65+ years: 100% (N=5)
  - All Flu Deaths: 100% (N=7)

- Vaccination Status:
  - Underlying Medical Condition: 0%
  - 18-64 years: 0%
  - < 18 years: 0%
  - 65+ years: 20%
  - All Flu Deaths: 14%

*known to be vaccinated
Influenza Reporting in San Diego County

Individual influenza cases are reportable to the County of San Diego Epidemiology and Immunization Services Branch. Please report laboratory-positive influenza results to the County Epidemiology Unit by FAX (858) 715-6458 using a Confidential Morbidity Report Form, or an Influenza Case Report Form, and/or a copy of the laboratory results. Also, please indicate if the patient died and/or is a resident of a congregate living facility (if known).

Influenza specimens may be sent to Public Health Laboratory (PHL) for confirmation and subtyping. Please contact PHL at (619) 692-8500 before submitting or for questions and use the current PHL Test Requisition Form. Contact the Epidemiology Unit by telephone (619) 692-8499 or email (EpiDiv.HHSA@sdcounty.ca.gov) with questions about influenza data. Influenza outbreaks should be reported by telephone to (619) 692-8499.

Resource Links
- County of San Diego Epidemiology Unit www.sdepi.org
- County of San Diego 2020-21 Influenza Season Summary
- Influenza Watch Slide Deck – A slide version of this report for presentations
- County of San Diego Immunization Unit (SDIZ) www.sdiz.org
- California Immunization Registry (CAIR2)
- California Department of Public Health (CDPH) Influenza Update
- Centers for Disease Control and Prevention (CDC) Influenza Surveillance

Influenza Watch Data Sources

The following sources of data are used to produce this report:

- **Influenza case reports:** Medical providers and laboratories report individual cases of confirmed influenza via fax or electronic laboratory reporting (ELR) to Public Health Services Epidemiology Unit (Epidemiology).
- **Influenza deaths:** Hospital infection control professionals report influenza-related deaths. Pediatric flu deaths (under 18 years of age) are legally reportable in California; however, San Diego County requests that all influenza-related deaths be reported for surveillance purposes. Influenza-related deaths are also identified through death certificate registration. The County Office of Vital Records notifies Epidemiology when a new death is registered with influenza listed as a cause of death or contributing condition. In addition, influenza case reports are compared to death data for San Diego County, and matches are evaluated to determine if influenza infection was related to the cause of death.
- **Percent pneumonia and influenza deaths:** The percentage of all deaths registered that had either pneumonia and/or influenza listed as a cause of death is obtained directly from the Vital Records data system on a weekly basis.
- **Influenza-like illness (ILI):** Electronic emergency department (ED) visit data are submitted to Epidemiology daily. The percent of ED visits for ILI or flu (based on chief complaints or diagnosis) is calculated for each week. ILI is defined as fever and cough and/or sore throat.
- **Influenza outbreaks:** In a congregate living setting, outbreaks are defined as at least one laboratory-confirmed influenza in the setting of a cluster (≥2 cases) of influenza-like illness (ILI) within a 72-hour period. Influenza outbreaks are reportable in California. Epidemiology identifies outbreaks when facilities call to report. Other potential outbreaks are identified when multiple cases share an address or have a residential address that matches a skilled nursing or long-term care facility.
- **Number of vaccines:** The California Immunization Registry (CAIR2) provides weekly updates on the number of flu vaccinations given based on the number of flu vaccinations registered by participating providers. The San Diego Immunization Registry (SDIR) transitioned to the California Immunization Registry (CAIR2) on Monday, April 25, 2022. All vaccination data, previously pulled from SDIR, is now being pulled from CAIR2. Due to differences in the programming of each system, the overall count of vaccinations may differ slightly from previously-reported data.

For information on COVID-19 in San Diego County, please see the COVID-19 Watch weekly surveillance report. Additional COVID-19 data and a link to subscribe to the COVID-19 Watch are available on the San Diego County COVID-19 data website.